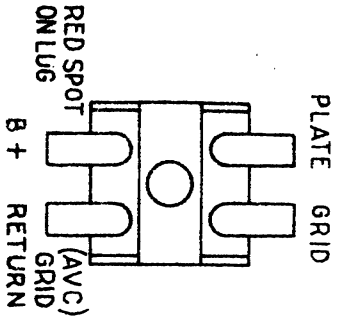
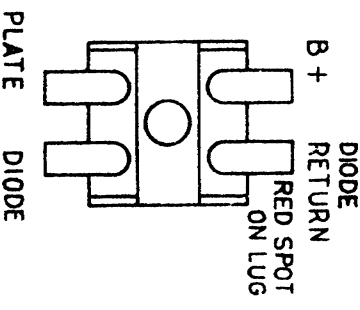


1ST I.F. TRANS.



2ND I.F. TRANS.



TRANSFORMER CONNECTIONS

ANTENNA COIL: Start of winding - furthest from mounting end - ANTENNA
 " " Finish of winding - nearest to mounting end - GRID

OSCL. COIL: Start of winding - furthest from mounting end -
 " " Finish of winding - nearest to mounting end - OSCL. GRID.
JUNCTION OF CIRCUIT NO. 9 & 11

POWER TRANSFORMER

PART NO. T164 40 & 50 cycle mains PART No. T165 40 & 50 cycle mains
 PRI. Red lead - Common PRI. Red lead - Common
 " Green lead - 200V mains " Green lead - 200V mains
 " Black lead - 230 & 240V mains " Black lead - 230 & 240V mains
 " White lead - 250V mains
 Electro-static shield joined internally to centre tap of HT. secondary.
 HT. Secondary.

Start - Blue lead
 Centre tap - yellow lead
 Finish - Blue lead

6.3V HT. secondary:- Start, indicator lamp tap and finish in 15 B & S winding wire leads.

5V. HT. secondary:- Start and finish in 21 B & S winding wire.



RADIO CORPORATION PTY. LTD.
 DIVISION OF ELECTRONIC INDUSTRIES LTD.
 126-130 GRANT STREET, SOUTH MELBOURNE, S.C.4
TECHNICAL BULLETIN

MODEL — ANL
 TWO UNIT GRAMO-RADIO COMBINATION

An Automatic 4 Speed Record Changer (78,45, 33-1/3, 16-2/3, r.p.m.) and an 8 valve Superheterodyne Broadcast Band Receiver.

FOR OPERATION FROM:

- 200-240 Volt 40 or 50 Cycle AC. Mains (Power Transformer T164)
- Power trans Primary Tap-red-common.
- " " " " -green-200 Volt mains.
- " " " " -black-230 & 240 Volt mains.
- 200-250 Volt 40 or 50 Cycle AC. Mains (Power Transformer T165)
- Power trans. Primary Tap-red-common.
- " " " " -green-200 Volt mains.
- " " " " -black-230 & 240 Volt mains.
- " " " " -white-250 Volt mains.

NOTE:

The record changer drive pulley for 40 Cycle mains operation is part No. 846/524.

POWER CONSUMPTION:

Radio Operation:- 75 Watts-approx.
 Gramo Operation:- 90 Watts-approx.

TUNING RANGE:

Broadcast Band 535-1640 kc/s. - 560-182.9 Metres.

THIS BULLETIN CONTAINS:

- Alignment instructions.
- Circuit Diagram.

Connections for IF. and RF Transformers.
 Valve Placement Diagram.

ASTOR Model ANL

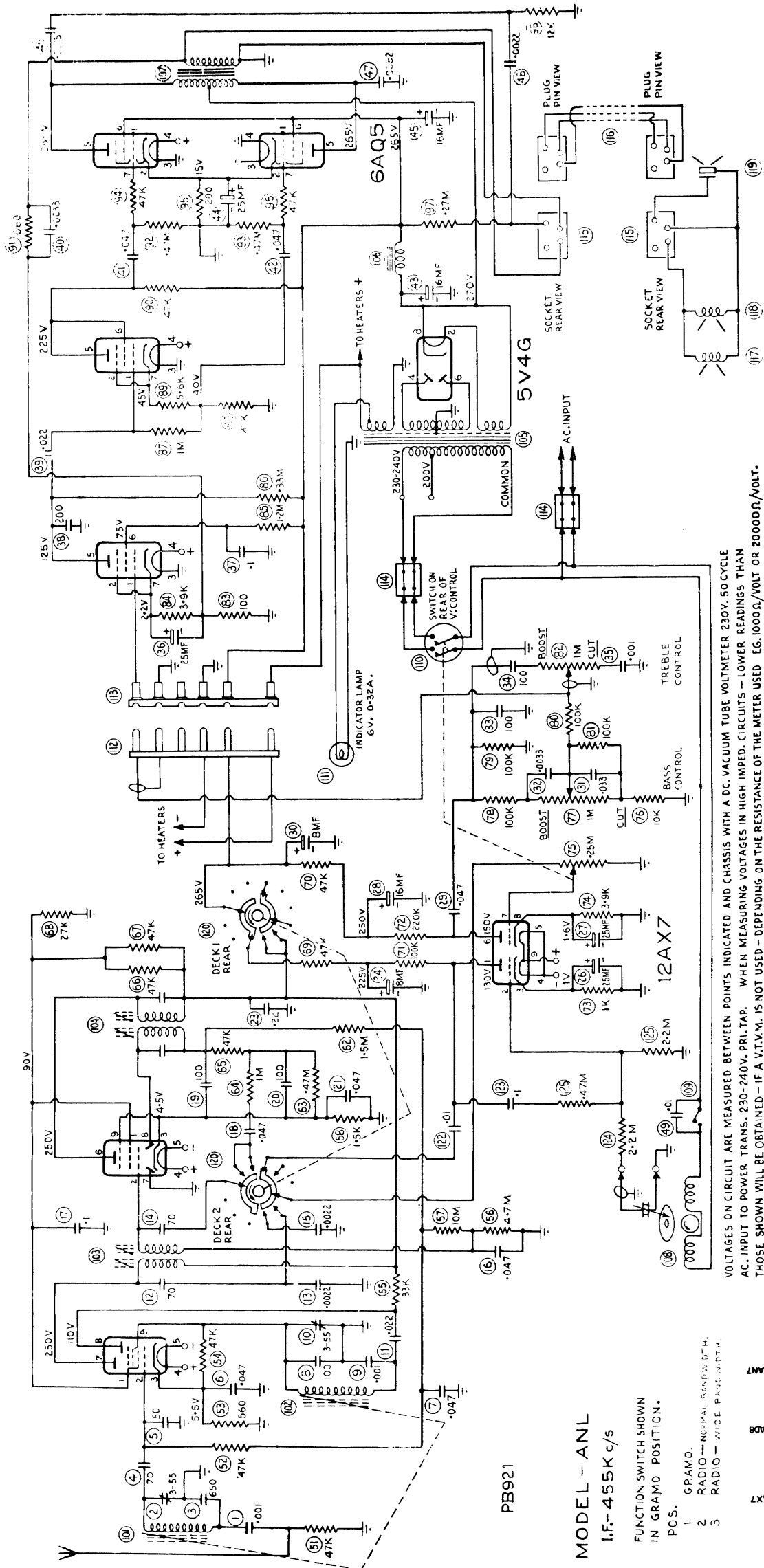
6AN7

6AD8

6AU6

6AU6

6AQ5



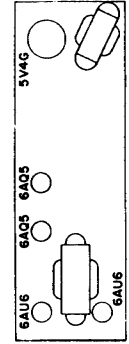
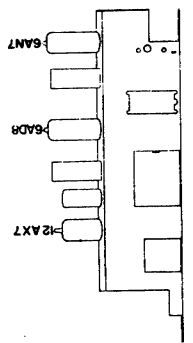
PB921

MODEL - ANL
I.F. - 455K c/s

FUNCTION SWITCH SHOWN
IN GRAMO POSITION.

- 1 GRAMO.
- 2 RADIO - NORMAL RANGE WITH.
- 3 RADIO - WIDE RANGE WITH.

VOLTAGES ON CIRCUIT ARE MEASURED BETWEEN POINTS INDICATED AND CHASSIS WITH A DC. VACUUM TUBE VOLTMETER 230V. 50 CYCLE AC. INPUT TO POWER TRANS. 230-240V. PRL.TAP. WHEN MEASURING VOLTAGES IN HIGH IMPED. CIRCUITS - LOWER READINGS THAN THOSE SHOWN WILL BE OBTAINED - IF A V.T.V.M. IS NOT USED - DEPENDING ON THE RESISTANCE OF THE METER USED EG. 1000Ω/VOLT OR 20000Ω/VOLT.



ALIGNMENT PROCEDUREEQUIPMENT

Signal Generator: Load Impedance: 2.5 Ohms (output meter connected across speaker trans secondary).

Output Meter : Output Level : 50 milliwatts
Vol Control : Max. vol fully clockwise

Mica Capacitor : 0.01MF (for I.F. trans alignment)

ALIGNMENT CONDITIONS.

Dummy Antenna : 200MHF mica capacitor

Alignment Tools : Type M195
and FMS81

Bass Control : Min. Bass position

Treble Control: Min. Treble position

Intermediate Freq: 455 Kc/s.

Function Switch Centre position.

Input Voltage : 230 volts 50 cycle AC. input to trans. 230-240 Volt tap.

"Radio" (normal bandwidth)

NOTE: 1.

The receiver chassis has to be removed from the cabinet to make adjustments to the I.F. transformer iron cores, or to set the pointer on the dial knob to the end of travel spot at the H.F. end of the dial.

It is not necessary to remove the receiver chassis to adjust the tuning unit trimmer condensers.

NOTE: 2.

Instructions for removing the cabinet base and chassis units are detailed on the following pages of this bulletin.

I.F. TRANSFORMER ALIGNMENT.

Oper No.	Generator Connection Frequency	Generator Antenna	Dummy	Instructions
1.	To signal 455 Kc/s	0.01MF mica capacitor in series with 6AD8 IF. valve pin No.2.		Turn trimmer to centre position "Radio" normal bandwidth. Leave grid wire attached to valve socket. Peak 2nd IF. trans pri. and sec. for max output.
2.	To signal 455 Kc/s	0.01MF mica capacitor in series with 6AN7 valve pin No.2.		Turn perm tuner so that iron cores are fully out of winding on coil formers and the unit is hard against the stop. Leave grid wire attached to valve socket. Peak 1st. IF. trans. pri and sec. for max. output.

BROADCAST ALIGNMENT.NOTE 1.

After the pointer line on the dial knob has been set to the end of travel spot near 1700 Kc/s. the receiver osc. and aerial trim, condensers may be aligned while the template is fitted to the chassis or the template may be removed, the chassis fitted to the cabinet then align the osc. and aerial trim, condensers using the calibrated transfer dial reading on the cabinet.

NOTE 2.

Both iron cores in the perm. tuner unit are pre-set at the factory to an exact dimension of 2.275" between the extreme end of the former protruding through the rubber grommet and the end of the iron core in the former when the unit is turned fully anti-clockwise and is hard against the stop.

If incorrect logging and misalignment are to be avoided, no adjustment of the iron cores must be made to vary this dimension. Both iron cores must have the same colour identification spot on the end of the iron core.

NOTE 3. The 200 MHF Dummy antenna must be connected to the antenna junction lug on the chassis. Should an antenna be connected to the short antenna lead from the receiver it is to be disconnected or rolled into a small hank.

Oper. Generator Connection Frequency. Antenna.

Instructions.

- To antenna junction lug, on chassis
 - To antenna junction lug, on chassis
- 1000 Kc/s
- 200 MHF mica capacitor in series with generator
- Turn perm tuner and dial pointer knob until the centre of the line on the knob aligns with the centre of the 1000 Kc/s spot on the template (or the dial reading on the cabinet if the receiver is fitted to the cabinet. Peak osc. coil trimmer condenser then peak ant. coil trimmer condenser for max. output. Repeat osc. coil trimmer condenser.
- Check logging at each end of tuning scale.
- Tuning range after alignment 535 to 1340 Kc/s.